II. Amendments to the Claims:

1. (Cancelled).

2. (Currently Amended) The process for depositing the gallium oxide on the substrate as recited in claim [[1]] 18, wherein the organic ester is of the form

$$R_1\text{-}C\ (=O)\text{-}O\text{-}CR_2R_3R_4$$

wherein R_1-R_3 are H or a short-chain saturated organic group having 1 to 4 carbon atoms and R_4 is a short-chain, saturated organic group having 1 to 4 carbon atoms.

3. (Currently Amended) The process for depositing the gallium oxide coating on the substrate as recited in claim [[1]] 18, wherein the organic ester is selected from the group consisting of: ethyl acetate, isobutyl acetate, n-butyl acetate, and t-butyl acetate and ethyl formate.

4. (Currently Amended) The process for depositing the gallium oxide coating on the substrate as recited in claim [[1]] 18, wherein the substrate is a float glass ribbon.

5. (Currently Amended) The process for depositing the gallium oxide coating on the substrate as recited in claim [[1]] 18, wherein the inorganic gallium halide is gallium trichloride.

6. (Currently Amended) The process for depositing the gallium oxide coating as recited in claim [[1]] 18, wherein the gallium oxide is deposited onto the hot glass at a deposition rate greater than or equal to 75Å/sec.

7. (Original) The process for depositing the gallium oxide coating as recited in claim 6, wherein the gallium oxide is deposited onto the hot glass at a deposition rate greater than or equal to 100Å/sec.

8. (Currently Amended) The process for depositing the gallium oxide coating on hot [flat] float glass as recited in claim 4, wherein the precursor gas mixture flows over the float glass ribbon to be coated under laminar flow conditions.

9. (Original) The process for depositing the gallium oxide coating on the substrate as recited in claim 4, wherein said hot glass surface is at a temperature in the range of about 1100°-1320°F/590°C-715°C.

10. (Currently Amended) The process for depositing the gallium oxide coating on the glass substrate as recited in claim [[1]] 18, wherein the organic ester is ethyl acetate and said substrate is a float glass ribbon.

11. (Currently Amended) The process for depositing the gallium oxide coating on the substrate as recited in claim [[1]] 18, wherein the substrate has a silica coating thereon, and the gallium oxide coating is deposited over the silica coating.

12. (Previously Presented) The process for depositing the gallium oxide coating on the glass substrate as recited in claim 5, wherein the gallium trichloride in the precursor gas mixture is at a concentration of about 0.5 - 5 % by volume.

13. (Original) The process for depositing the gallium oxide coating on the glass substrate as recited in claim 12, wherein the organic ester in the precursor gas mixture is at a concentration of about 3 to 10 times the concentration of the gallium trichloride.

14. (Cancelled)

15. (Currently Amended) A chemical vapor deposition process for depositing a gallium oxide coating on a hot glass substrate comprising:

pre-mixing a uniform, precursor gas mixture containing an inorganic gallium halide and an organic ester having 3-6 carbon atoms;

delivering the precursor gas mixture at a temperature below the thermal decomposition temperature of the organic ester to a location adjacent the hot glass substrate to be coated, the substrate being at a temperature above the thermal decomposition temperature of the organic ester, and the atmosphere surrounding the substrate is at, essentially, atmospheric pressure; and

introducing the precursor gas mixture into a vapor space above the substrate wherein the organic ester thermally decomposes, and, thereby initiates

a reaction with the gallium halide to produce a gallium oxide coating on the substrate at a deposition rate greater than or equal to 100Å/sec., the gallium oxide coating having a refractive index of about 1.7-1.95.

16. (Cancelled).

17. (Cancelled).

18. (Previously Presented) A chemical vapor deposition process for deposition of a gallium oxide coating on a hot glass substrate comprising:

preparing a precursor gas mixture containing an inorganic gallium halide and an organic ester for formation of gallium oxide;

maintaining the precursor gas mixture at a temperature below the temperature at which the gallium halide reacts to form the gallium oxide while delivering the mixture to a coating chamber opening onto the hot glass; and

introducing the precursor gas mixture into the coating chamber, whereby the mixture is heated to cause deposition of the gallium oxide incorporating oxygen from the organic ester, onto the hot glass surface, wherein said gallium oxide coating has a refractive index of about 1.7-1.95.